a1 cancld sensed temperature is high, the high frequency signal having a frequency higher than the frequency of the driving signal used at the normal temperature.

9. (Amended) A liquid crystal device comprising a liquid crystal panel having a liquid crystal between a pair of substrates and a driving circuit that applies a driving signal between the pair of substrates and that varies optical characteristics of the liquid crystal, the liquid crystal device further comprising:

a temperature sensor that senses a temperature of at least one of the liquid crystal panel and an environment in which the liquid crystal panel is disposed; and

a2 a temperature compensating device that applies a low frequency signal as the driving signal in case that the sensed temperature is low, the low frequency signal having a frequency lower than a frequency of a driving signal used in case that the sensed temperature is normal.

10. (Amended) The liquid crystal device according to claim 9, the temperature compensating device applying a high frequency signal as the driving signal in case that the sensed temperature is high, the high frequency signal having a frequency higher than the frequency of the driving signal used at the normal temperature.

a3 22. (Amended) An electronic apparatus comprising the liquid crystal device as set forth in claim 21 as a display device.

REMARKS

Claims 1-22 are pending. By this Amendment, claims 1, 2, 9 and 10 are amended for clarity only and not to overcome prior art, and claim 22 is amended to correct for an informality. Reconsideration based on the above amendments and following remarks is respectfully requested.

Applicant appreciate the Office Action's indication that claims 3-8 and 11-22 contain allowable subject matter.

The attached Appendix includes a marked-up copy of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

I. CLAIM 22 SATISFIES ALL FORMAL REQUIREMENTS

The Office Action objects to claim 22 because of an informality. Claim 22 has been amended to obviate the objection. Withdrawal of the objection is respectfully requested.

II. THE CLAIMS DEFINE ALLOWABLE SUBJECT MATTER

The Office Action rejects claims 1-2 and 9-10 under 35 U.S.C. §102(e) as unpatentable over U.S. Patent No. 6,037,920 to Mizutome et al. (hereinafter "Mizutome"). The rejection is respectfully traversed.

Mizutome fails to disclose or suggest a liquid crystal panel driving method or liquid crystal device including at least, inter alia, applying a low frequency signal as the driving signal in case that the sensed temperature is low, the low frequency signal having a frequency lower than a frequency of a driving signal used in case that the sensed temperature is normal, as recited in claims 1 and 9. Further, Mizutome fails to disclose or suggest a liquid crystal panel driving method or liquid crystal device including at least, inter alia, applying a high frequency signal as the driving signal in case that the sensed temperature is high, the high frequency signal having a frequency higher than the frequency of the driving signal used at the normal temperature, as recited in claims 2 and 10.

The Office Action asserts that Mizutome, at col. 1, lines 36-54, col. 2, lines 20-24 and 65-67, col. 3, lines 23-25, col. 4, lines 22-52 and 61-67, and col. 6, lines 20-24, discloses the claimed subject matter. Specifically, the Office Action asserts that the frequency value of 7-26 Hz for a temperature range of 5-30°C, as disclosed in Mizutome at col. 6, lines 20-24, is equivalent of the claimed feature of applying "a low frequency signal as the driving signal at a low temperature based on the sensed temperature," as claimed in claims 1 and 9. Moreover, the Office Action asserts that the frequency value of 14-20 Hz for a temperature range of 30-

40°C, as disclosed in Mizutome at col. 6, lines 20-24, is equivalent of the claimed feature of applying "a high frequency signal as the driving signal at a high temperature based on the sensed temperature," as claimed in claims 2 and 10.

Applicant respectfully disagrees with the Office Action's assertion. Mizutome, as disclosed at col. 4, lines 22-52 and col. 6, lines 10-24, discloses that the signal for driving the liquid crystal panel has a frequency range of 7-26 Hz for liquid crystal drive temperature range of 5-30°C, and a frequency range of 14-20 Hz for liquid crystal drive temperature range of 30-40°C. Thus, Mizutome discloses that the frequency range upper value may be higher at low liquid crystal drive temperatures than at higher crystal temperatures, which is different than the claimed subject matter recited in claims 1, 2, 9 and 10.

For at least these reasons, it is respectfully submitted that claims 1, 2, 9 and 10 are distinguishable over the applied art. Withdrawal of the rejections under 35 U.S.C. §102(e) is respectfully requested.

III. CONCLUSION

For at least the reasons discussed above, it is respectfully submitted that this application is in condition for allowance.

Should the Examiner believe that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

James A. Oliff
Registration No. 27,075

George P. Simion
Registration No. 47,089

Attachment:
Appendix

Date: February 13, 2003

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461

APPENDIX

Changes to Claims:

The following is a marked-up version of the amended claims:

1. (Amended) A liquid crystal panel driving method for a liquid crystal panel having a liquid crystal between a pair of electrodes in which optical characteristics of the liquid crystal are changed by applying a driving signal between the pair of electrodes, the liquid crystal panel driving method comprising the steps of:

sensing a temperature of at least one of the liquid crystal panel and an environment in which the liquid crystal panel is disposed; and

applying a low frequency signal as the driving signal ~~at a~~in case that the sensed temperature is low ~~temperature based on the sensed temperature~~, the low frequency signal ~~being~~ having a frequency lower than a frequency of a driving signal used in case that the sensed temperature is ~~at~~ normal ~~temperature~~.

2. (Amended) The liquid crystal panel driving method according to claim 1, further comprising applying a high frequency signal as the driving signal in case that ~~at a high temperature based on~~ the sensed temperature is high, the high frequency signal ~~being~~ having a frequency higher than the frequency of the driving signal used at the normal temperature.

9. (Amended) A liquid crystal device comprising a liquid crystal panel having a liquid crystal between a pair of substrates and a driving circuit that applies a driving signal between the pair of substrates and that varies optical characteristics of the liquid crystal, the liquid crystal device further comprising:

a temperature sensor that senses a temperature of at least one of the liquid crystal panel and an environment in which the liquid crystal panel is disposed; and

a temperature compensating device that applies a low frequency signal as the driving signal ~~at a~~in case that ~~low temperature based on~~ the sensed temperature ~~obtained by~~

~~the temperature sensor~~is low, the low frequency signal ~~being~~ having a frequency lower than a frequency of a driving signal used ~~at~~ in case that the sensed temperature is normal-~~temperature~~.

10. (Amended) The liquid crystal device according to claim 9, the temperature compensating device applying a high frequency signal as the driving signal ~~at a high~~in case that the sensed temperature is high, the high frequency signal ~~being~~ having a frequency higher than the frequency of the driving signal used at the normal temperature.

22. (Amended) An electronic apparatus comprising the liquid crystal device as set forth in claims 21 as a display device.